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April 21, 1967

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Declass Review by NGA.

P. O. Box 6788
Fort Davis Station
Washington, D. C. 20020

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Attention:

Reference:

Subject: Thirty-third Monthly Report

Gentlemen:

Enclosed are five (5) copies of the thirty-third Monthly Letter Report covering the period of March 1, 1967, to March 21, 1967, in accordance with the referenced contract.

Yours truly,

INFORMATION SYSTEMS
MARKETING AND PLANNING DEPARTMENT

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Contract Administrator

WK:ks

Encs: one (1) to Contracting Officer
four (4) directly to Technical Monitor

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CONTACT DUPLICATING AND RESEAU PRINTER

AND

HIGH RESOLUTION STEP AND REPEAT PRINTER

THIRTY-THIRD MONTHLY LETTER REPORT

April 10, 1967

Period: March 1, 1967 to March 31, 1967

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1.0 CONTACT DUPLICATING AND RESEAU PRINTER

1.1 Purpose

The overall objective of the current contract is the design, fabrication, test and delivery of a photographic step and repeat Contact Duplicating and Reseau Printer. Prime design goals are high-speed automatic operation, variable format capability, and high resolution with minimum film distortion or damage. The delivered equipment will be suitable for operational use. The printer will accommodate films of 70mm to 9½" width with frame lengths up to 30 inches and will provide operation in the Reseau mode and selective mode as options.

1.2 Activity of this Report Period

The Film Metering Mechanism is complete and has been repeatedly checked for accuracy and reliability. Repetitive accuracy for a variety of frame length settings is within 1/4". A chart will be prepared so that the operator may readily set the counter dials for activation of the Frame Edge Detector in accordance with frame length.

Repairs to the Raw Stock Metering Mechanism are complete and its function has been checked for accuracy and reliability. Repeated readings show an accuracy in the order of 1/4".

The Mylar interlayer has been integrally mounted in the Printer between the air-bag and the duplicating film. Further tests have proven that no film distortion is apparent with the dimensionally stable interface. Tests are underway to determine whether the added layer has any detrimental effect upon resolution.

Exposure lamps have been effectively balanced for uniformity of illumination at the platen. In addition, the lamp/photocell circuits have been balanced at both high and low density inputs for optimum performance in the Automatic Exposure Control mode. Stability tests are now being made.

The Pre-View & Punch Station has been modified and tested at the sub-contractor's facility, and in view of acceptable results, has now been shipped

25X1 [redacted] for systems test.

A review meeting with the Government Program Monitors was held on March 22 to evaluate the results of lamp/photocell calibration and circuit stability. Further exposure tests are being made to determine operating characteristics in the automatic mode.

The drawing package for the Film Metering Mechanism and other modifications has been completed.

1.3 Plans for Next Report Period

Continue testing of Automatic Exposure Control system to determine limitations and stability of lamp/photocell circuitry. Complete resolution tests with Mylar interlayer installed.

Demonstrate Test Procedures to customer prior to shipment.

Complete updating of Operations Manual.

Ship and install unit at customer facility prior to final acceptance testing.

A meeting is planned to review current tests before proceeding with formal demonstration and shipment.

1.4 Problems

The joint meeting of March 22 disclosed that certain limitations exist in the Automatic Exposure Control mode. When input densities exceed approximately 1.7, photocell current is minimal and exposure lamps do not time out proportionately. Current experiments are directed toward determining the limitations of input area size and density which result in marginal performance.

1.5 Documentation

None

1.6 Questions Outstanding

None

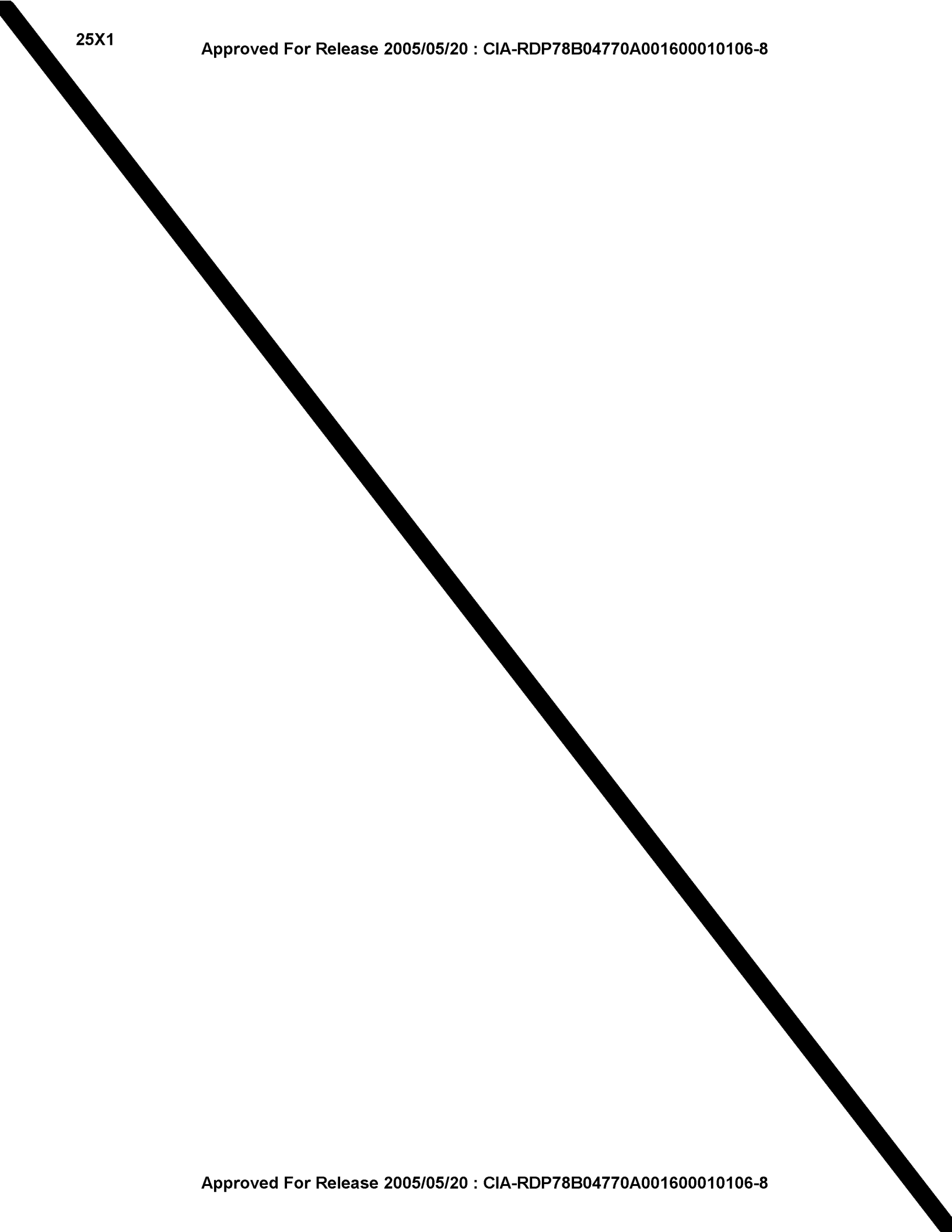
2.0 HIGH RESOLUTION STEP AND REPEAT PRINTER

2.1 Purpose

The purpose of this effort is to design, fabricate, test and deliver in twenty months a high precision step and repeat, photographic contact printer. This printer will be capable of producing photographic contact prints of the highest possible quality, resolution, and acutance from roll film of widths varying from 70mm to 9½" and in pre-selected frame lengths from 5 inches up to a maximum of 30 inches.

2.2 Activity of this Report Period

There was no activity this month. The Stop-work period expired 11 January 66. [redacted] is still awaiting Government direction. 25X1



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